



Generation IV Roadmap Crosscut Groups

***GRNS Meeting: Washington, D.C.
October 2, 2001***

Background

- ***Initial Roadmap plan called for:***
 - ***Fuel Cycle Crosscut group to be formed early in process to conduct a comparative assessment of alternative fuel cycles***
 - ***Additional crosscut groups to be formed to investigate other areas that could potentially benefit from common R&D***

Status

- ***Fuel Cycle Crosscut Group has drafted a report and hopes to complete it in 2 weeks***
- ***In May, the RIT and GRNS discussed the topics to be covered by additional crosscut groups***
- ***In August, the RIT continued these discussions with the WG co-chairs and then the WG members***
- ***Recommendation:***
 - ***Four additional crosscut groups should be formed with R&D topics assigned to each group***
 - ***FCCG should extend its work into the same deliverables as the new CGs***

Recommended Crosscut Groups

- ***Fuel Cycle Crosscut Group***
- ***Fuels and Materials Crosscut Group***
- ***Risk and Safety Crosscut Group***
- ***Economics Crosscut Group***
- ***Energy Products Crosscut Group***

R&D Topics Assigned to Each CG

FCCG

- *Fuel Cycles*
- *Mining*
- *Enrichment*
- *Reprocessing*
- *Transmutation*
- *Waste disposal*
- *Non-proliferation*

RSCG

- *Static & transient analysis*
- *Design basis analysis*
- *Instrumentation and control*
- *Balance of plant*
- *Probabilistic risk assessment*
- *Risk-based regulation*
- *Personnel safety*

ECG

- *Economic models*
- *Modularity*
- *Constructability*
- *Standardization*
- *Economics of operation*
- *Power conversion*

FMCG

- *Fuel, cladding, absorbers*
- *Fabrication*
- *Fuel testing*
- *Spent fuel behavior*
- *Structural materials*
- *Materials compatibility and testing*

EPCG

- *Electricity*
- *Hydrogen production*
- *Desalination*
- *District & process heat*
- *Cogeneration*

Crosscut Group Work Scope

- *Look for opportunities for common R&D*
- *Identify objectives for common R&D*
- *Identify how common R&D improves ability to meet goals*
- *Identify scope, schedule, and cost for common R&D*
- *Recommend R&D priorities (R&D needed most to reduce uncertainties)*
- *Contribute sections to R&D Scope Reports*
- *Review WG reports for consistency of scoring in crosscut areas*
- *Prepare reports on specific issues as needed, possibly with the aid of Specialists Review Groups*
- *Write Joint R&D Planning Report with input from TWGs*

Crosscut Group Work Process

- ***CG work is done in parallel with TWG work***
 - ***Project scope, schedule, and deliverables remain the same, but some responsibility is shifting to CGs***
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- ***TWGs remain responsible for R&D Scope Reports***
 - ***CG work is incorporated into R&D Scope Reports***
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- ***CGs and TWGs are responsible for Joint R&D Planning Report***

Specialists Review Groups

- ***Established as needed by CG Co-Chairs***
- ***Work on specific topics owned by CG, e.g. Instrumentation & Control SRG within RSCG***
- ***Perform tasks requested by CG Co-Chairs***
 - ***Review R&D gaps in special areas***
 - ***Develop R&D plan in special areas***
- ***SRGs may include unpaid volunteers not within any TWG or CG***
- ***CG Co-Chairs own any SRG products***

Roadmap Milestones in 2002

<i>11-Jan-02</i>	<i>Draft Roadmap</i>	<i>RIT</i>
<i>25-Jan-02</i>	<i>R&D scope report (draft-1 per TWG)</i>	<i>TWGs /CGs</i>
<i>22-Mar-02</i>	<i>R&D scope report (final-1 per TWG)</i>	<i>TWG s/CGs</i>
<i>26-Apr-02</i>	<i>Final screening complete</i>	<i>RIT</i>
<i>31-May-02</i>	<i>Interim Roadmap</i>	<i>RIT</i>
<i>21-Jun-02</i>	<i>Viability/Performance evaluation methodology report (final)</i>	<i>EMG</i>
<i>28-Jun-02</i>	<i>Final R&D planning report</i>	<i>CGs/TWGs (joint)</i>
<i>02-Aug-02</i>	<i>Final Roadmap (draft)</i>	<i>RIT</i>
<i>27-Sep-02</i>	<i>Final Roadmap</i>	<i>RIT</i>

Crosscut Group Rosters

	<i>ECCG</i>	<i>EMCG</i>	<i>RSCG</i>	<i>ECG</i>	<i>EPCG</i>
<i>EMG</i>	<i>W. Halsey</i>	<i>*D. Crawford</i>	<i>*P. Peterson</i> <i>D. Bley</i>	<i>K. Miller</i> <i>*G. Rothwell</i> <i>E. Bertel</i>	<i>M. Golay</i>
<i>TWG1</i>	<i>B. Boullis</i>	<i>G. Was</i> <i>P. MacDonald</i>	<i>M. Carelli</i>	<i>K. Hedges</i> <i>P. Lauret</i> <i>*M. Corradini</i>	<i>A. Vasile</i>
<i>TWG2</i>	<i>K. Fukuda</i> <i>D. Greneche</i>	<i>*W. von Lensa</i> <i>T. Abram</i> <i>D. Moses</i>	<i>S. Ball</i> <i>B. Ballot</i> <i>J. Royen</i>	<i>A. Kadak</i>	<i>A. Shenoy</i> <i>M. Ogawa</i>
<i>TWG3</i>	<i>C. Boardman</i> <i>*D. Wade</i> <i>J. Glatz</i>	<i>N. Li</i>	<i>S. Rosen</i> <i>K. Suh</i>	<i>J. Touhy</i> <i>M. Ichimiya</i>	<i>Y. Sagayama</i>
<i>TWG4</i>	<i>*C. Forsberg</i> <i>M. Leroy</i>	<i>W. Park</i> <i>C. Garzenne</i>	<i>M. Delpech</i> <i>*P. Pickard</i>	<i>T. Lennox</i>	<i>*L. Peddicord</i> <i>*A. Klein</i> <i>D. Lewis</i> <i>S. Herring</i>
<i>NTDG</i>			<i>J. Binder</i>	<i>C. Braun</i>	
<i>RIT</i>	<i>H. Khalil</i>	<i>T. Allen</i>	<i>G. Fiorini</i>	<i>R. Bennett</i>	<i>J. Ryskamp</i>
<i>Other</i>	<i>H. Noda</i> <i>L. Van Den</i> <i>Durpel</i>				

Path Forward

- ***Finalize CG structure, scope, and roster at this meeting***
- ***Contact co-chairs and members to confirm participation***
- ***RIT drafted CG charters for negotiation with CG co-chairs***
- ***The first meeting of the new crosscut groups will be held in San Francisco for 1 to 1.5 days.***